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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,607	07/28/2003	Makoto Onodera	62758-047	4276
<div>7590 McDermott, Will & Emery 600 13th Street, N.W. Washington, DC 20005-3096</div>				
<div>07/27/2007</div>				
<div>EXAMINER OCHOA, JUAN CARLOS</div>				
<div>ART UNIT 2123</div>				
<div>PAPER NUMBER</div>				
<div>MAIL DATE 07/27/2007</div>				
<div>DELIVERY MODE PAPER</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/627,607	Applicant(s) ONODERA ET AL.	
	Examiner Juan C. Ochoa	Art Unit 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/14/07 has been entered.

2. The amendment filed 5/14/07 has been received and considered. Claims 1–6 are presented for examination.

Claim Objections

3. Claim 1 is objected to because of the following informalities:
4. Claim 1, page 4, line 6, includes the misspelled term “or”. Examiner interprets as “for” for examination purposes.
5. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1–6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01.

8. Specifically, in claims 1 and 3, the omitted elements are: elements to produce an analytical shell-model as set forth in the claims preambles. Examiner interprets “an internal-surface model” as “an analytical shell-model”, as set forth in the claims preamble, for examination purposes. While in the body of the claims, claims 1 and 3 produce “an internal-surface model”; they don’t produce “an analytical shell-model” as set forth in the claims preambles.

9. Dependent claims inherit the defect of the claim from which they depend.

Response to Arguments

10. Applicant's arguments filed 5/14/07 have been fully considered but they are not persuasive.

11. Regarding the specification objections, the amendment corrected all deficiencies and the objections are withdrawn.

12. Regarding the claim objections, the amendment corrected all deficiencies and the objections are withdrawn.

13. Regarding the rejections under 112, deficiencies remain.

14. Regarding the rejections under 101, Applicant's arguments have been considered and the objections are withdrawn.

15. Regarding the rejections under 102, Applicant's arguments have been considered and the rejections are withdrawn.

16. Regarding the rejections under 103, Applicant's arguments have been considered and the rejections are withdrawn.

17. Claims 1 and 3 contain allowable subject matter.

18. The following is a statement of reasons for the indication of allowable subject matter:

19. While Mitsuhiro Tonooka, U.S. Patent 7,002,575, discloses an analytical shell-model producing apparatus (see "shell-model producing apparatus" as "design supporting apparatus" in col. 3, lines 34–37 and Fig. 1, item No. 10), Kawaguchi et al., U.S. Patent 7,038,700, discloses a side rib attribute acknowledging means for acknowledging a rib surface. (See col. 8, lines 53–58, and Fig. 9A), and Mobley et al., An Object Oriented Approach to Geometry Defeaturing for Finite Element Meshing, discloses a top/bottom rib attribute emphatic displaying means for displaying the top side surface, the bottom side surface and the rib surface, which are acknowledged by said top/bottom side rib attribute acknowledging means, with making emphasis thereon (see Fig. 11 in page 560 and Fig. 13 in page 561).

20. None of these references taken either alone or in combination disclose an analytical shell-model apparatus for converting a three-dimensional configuration model into an analytical shell-model specifically including:

claim 1 "a pair-surfaces acknowledging means for acknowledging two (2) surfaces as pair-surfaces data, being equal or less than the reference-plate thickness size, which is

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inputted by said reference-plate thickness inputting means, in face-to-face distance between two (2) arbitrary surfaces constructing the configuration model" and "a top-bottom side rib attributes acknowledging means for classifying the pair-surfaces data registered by said pair-surfaces acknowledging means into a top-side surface, a bottom-side surface and a rib surface, through producing a neighboring graph of connecting nodes themselves to the neighboring surfaces by edges, with presuming the surfaces to be nodes to the configuration model, and searching a loop including two (2) or more of the edges of a pair attribute, while determining a non-rib surface when the number of nodes within the loop is equal or less than four (4), and thereby registering the attributes as top-side surface data, bottom-side surface data, and rib surface data, respectively",

and claim 3 "a pair-surfaces acknowledging means for acknowledging two (2) surfaces, being equal or less than the reference-plate thickness size, which is inputted by said reference-plate thickness inputting means, in face-to-face distance between two (2) arbitrary surfaces constructing the configuration model" and "a top/bottom side rib attribute acknowledging means for acknowledging the two (2) surfaces acknowledged by said pair-surfaces acknowledging means to be one of a top side surface, a bottom side surface, and a rib surface",

in combination with the remaining elements and features of the claimed invention. Also, there is no motivation to combine these references to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Conclusion

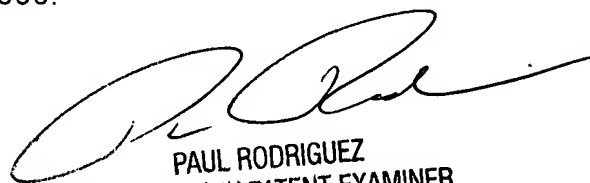
21. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JP 7/23/07


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